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NEWS 1		Web Page for STN Seminar Schedule - N. America
NEWS 2	JUL 28	CA/CAplus patent coverage enhanced
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NEWS 4	JUL 28	IFICDB, IFIPAT, and IFIUDB reloaded with enhancements
NEWS 5	JUL 28	STN Viewer performance improved
NEWS 6	AUG 01	INPADOCDB and INPAFAMDB coverage enhanced
NEWS 7	AUG 13	CA/CAplus enhanced with printed Chemical Abstracts page images from 1967-1998
NEWS 8	AUG 15	CAOLD to be discontinued on December 31, 2008
NEWS 9	AUG 15	CAplus currency for Korean patents enhanced
NEWS 10	AUG 27	CAS definition of basic patents expanded to ensure comprehensive access to substance and sequence information
NEWS 11	SEP 18	Support for STN Express, Versions 6.01 and earlier, to be discontinued
NEWS 12	SEP 25	CA/CAplus current-awareness alert options enhanced to accommodate supplemental CAS indexing of exemplified prophetic substances
NEWS 13	SEP 26	WPIDS, WPINDEX, and WPIX coverage of Chinese and and Korean patents enhanced
NEWS 14	SEP 29	IFICLS enhanced with new super search field
NEWS 15	SEP 29	EMBASE and EMBAL enhanced with new search and display fields
NEWS 16	SEP 30	CAS patent coverage enhanced to include exemplified prophetic substances identified in new Japanese-language patents
NEWS 17	OCT 07	EPFULL enhanced with full implementation of EPC2000
NEWS 18	OCT 07	Multiple databases enhanced for more flexible patent number searching
NEWS 19	OCT 22	Current-awareness alert (SDI) setup and editing enhanced
NEWS 20	OCT 22	WPIDS, WPINDEX, and WPIX enhanced with Canadian PCT Applications
NEWS 21	OCT 24	CHEMLIST enhanced with intermediate list of pre-registered REACH substances
NEWS 22	NOV 21	CAS patent coverage to include exemplified prophetic substances identified in English-, French-, German-, and Japanese-language basic patents from 2004-present

NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
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 NEWS IPC8      For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that
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FILE 'HOME' ENTERED AT 09:09:07 ON 25 NOV 2008

=> file .meeting
'EVENTLINE' IS NOT A VALID FILE NAME
Enter "HELP FILE NAMES" at an arrow prompt (=>) for a list of files
that are available.  If you have requested multiple files, you can
specify a corrected file name or you can enter "IGNORE" to continue
accessing the remaining file names entered.
ENTER A FILE NAME OR (IGNORE):ignore
'IMSDRUGCONF' IS NOT A VALID FILE NAME
Enter "HELP FILE NAMES" at an arrow prompt (=>) for a list of files
that are available.  If you have requested multiple files, you can
specify a corrected file name or you can enter "IGNORE" to continue
accessing the remaining file names entered.
ENTER A FILE NAME OR (IGNORE):ignore
'MEDICONF' IS NOT A VALID FILE NAME
Enter "HELP FILE NAMES" at an arrow prompt (=>) for a list of files
that are available.  If you have requested multiple files, you can
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accessing the remaining file names entered.
ENTER A FILE NAME OR (IGNORE):ignore
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.84       0.84

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=> (CD59 or (CD 59) and (myocardial infraction)
```

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UNMATCHED LEFT PARENTHESIS '(CD59'
The number of right parentheses in a query must be equal to the
number of left parentheses.

=>  (CD59 or (CD 59)) and (myocardial infraction)
L1            0 FILE AGRICOLA
L2            0 FILE BIOTECHNO
L3            0 FILE CONFSCI
L4            0 FILE HEALSAFE
L5            0 FILE LIFESCI
L6            0 FILE PASCAL

TOTAL FOR ALL FILES
L7            0 (CD59 OR (CD 59)) AND (MYOCARDIAL INFRACTION)

=>  (CD59 or (CD 59)) and (myocardial infarction)
L8            0 FILE AGRICOLA
L9            5 FILE BIOTECHNO
L10           0 FILE CONFSCI
L11           0 FILE HEALSAFE
L12           3 FILE LIFESCI
L13           7 FILE PASCAL

TOTAL FOR ALL FILES
L14          15 (CD59 OR (CD 59)) AND (MYOCARDIAL INFARCTION)

=> dup rem
ENTER L# LIST OR (END):l14
PROCESSING COMPLETED FOR L14
L15            9 DUP REM L14 (6 DUPLICATES REMOVED)

=> d l15 ibib abs total

L15   ANSWER 1 OF 9  PASCAL  COPYRIGHT 2008 INIST-CNRS. ALL RIGHTS RESERVED. on
      STN
ACCESSION NUMBER:         2003-0031525   PASCAL
COPYRIGHT NOTICE:         Copyright .COPYRGT. 2003 INIST-CNRS. All rights
                          reserved.
TITLE (IN ENGLISH):       Statin-induced expression of decay-accelerating factor
                          protects vascular endothelium against
                          complement-mediated injury
AUTHOR:                   MASON Justin C.; AHMED Zahra; MANKOFF Rivka; LIDINGTON
                          Elaine A.; AHMAD Saifur; BHATIA Vinay; KINDERLERER
                          Anne; RANDI Anna M.; HASKARD Dorian O.
CORPORATE SOURCE:         British Heart Foundation Cardiovascular Medicine Unit,
                          National Heart and Lung Institute, Imperial College,
                          Hammersmith Hospital, London, United Kingdom
SOURCE:                   Circulation research, (2002), 91(8), 696-703, 41 refs.
                          ISSN: 0009-7330  CODEN: CIRUAL
DOCUMENT TYPE:            Journal
BIBLIOGRAPHIC LEVEL:      Analytic
COUNTRY:                  United States
LANGUAGE:                 English
AVAILABILITY:             INIST-7216, 354000105180670090
AN    2003-0031525   PASCAL
CP    Copyright .COPYRGT. 2003 INIST-CNRS. All rights reserved.
AB    Complement-mediated vascular injury is important in the pathophysiology
      of atherosclerosis and myocardial infarction. Because
      recent evidence shows that statins have beneficial effects on endothelial
      cell (EC) function independent of lipid lowering, we explored the
      hypothesis that statins modulate vascular EC resistance to complement
```

through the upregulation of complement-inhibitory proteins. Human umbilical vein and aortic ECs were treated with atorvastatin or simvastatin, and decay-accelerating factor (DAF), membrane cofactor protein, and CD59 expression was measured by flow cytometry. A dose-dependent increase in DAF expression of up to 4-fold was seen 24 to 48 hours after treatment. Statin-induced upregulation of DAF required increased steady-state mRNA and de novo protein synthesis. L-Mevalonate and geranylgeranyl pyrophosphate reversed the effect, confirming the role of 3-hydroxy-3-methylglutaryl coenzyme A reductase inhibition and suggesting that constitutive DAF expression is negatively regulated by geranylgeranylation. Neither farnesyl pyrophosphate nor squalene inhibited statin-induced DAF expression, suggesting that the effect is independent of cholesterol lowering. Statin-induced DAF upregulation was mediated by the activation of protein kinase Ca and inhibition of RhoA and was independent of phosphatidylinositol-3 kinase and NO activity. The increased DAF expression was functionally effective, resulting in significant reduction of C3 deposition and complement-mediated lysis of antibody-coated ECs. These observations provide evidence for a novel cytoprotective action of statins on vascular endothelium that is independent of the effect on lipids and results in enhanced protection against complement-mediated injury. Modulation of complement regulatory protein expression may contribute to the early beneficial effects of statins in reducing the morbidity and mortality associated with atherosclerosis.

L15 ANSWER 2 OF 9 BIOTECHNO COPYRIGHT 2008 Elsevier Science B.V. on STN
ACCESSION NUMBER: 2001:32989238 BIOTECHNO
TITLE: Role of the complement system in ischaemic heart disease potential for pharmacological intervention
AUTHOR: Shernan S.K.; Collard C.D.
CORPORATE SOURCE: Dr. C.D. Collard, Div. of Cardiovasc. Anesthesiology, Texas Heart Institute, MCI-226, PO Box 20345, Houston, TX 77225-0345, United States.
E-mail: ccollard@heart.THI.TMC.edu
SOURCE: BioDrugs, (2001), 15/9 (595-607), 133 reference(s)
CODEN: BIDRF4 ISSN: 1173-8804
DOCUMENT TYPE: Journal; General Review
COUNTRY: New Zealand
LANGUAGE: English
SUMMARY LANGUAGE: English
AN 2001:32989238 BIOTECHNO
AB The complement system is an innate, cytotoxic host defence system that normally functions to eliminate foreign pathogens. However, considerable evidence suggests that complement plays a key role in the pathophysiology of ischaemic heart disease (IHD). Experimental models of acute myocardial infarction (MI) and autopsy specimens taken from acute MI patients demonstrate that complement is selectively deposited in areas of infarction. Furthermore, inhibition of complement activation or depletion of complement components prior to myocardial reperfusion has been shown to reduce complement-mediated tissue injury in numerous animal models. IHD remains a leading cause of patient morbidity and mortality. Considerable effort in recent years has therefore been directed by biotechnology and pharmaceutical industries towards the development of novel, human complement inhibitors. Proposed anticomplement therapeutic strategies include the administration of naturally occurring or recombinant complement regulators, anticomplement monoclonal antibodies, and anticomplement receptor antagonists. Although data regarding the effectiveness of anticomplement therapy in humans is limited at present, a number of novel anticomplement therapeutic strategies are currently in clinical trials. The role of complement in IHD and potential for pharmacological intervention is reviewed.

L15 ANSWER 3 OF 9 BIOTECHNO COPYRIGHT 2008 Elsevier Science B.V. on STN
DUPLICATE
ACCESSION NUMBER: 2000:30724679 BIOTECHNO
TITLE: Detection of a soluble form of the complement membrane attack complex inhibitor CD59 in plasma after acute myocardial infarction
AUTHOR: Vakeva A.; Lehto T.; Takala A.; Meri S.
CORPORATE SOURCE: Dr. A. Vakeva, Dept. of Bacteriology and Immunology, Haartman Institute, PO Box 21, FIN-00014 Helsinki, Finland.
E-mail: antti.vakeva@helsinki.fi
SOURCE: Scandinavian Journal of Immunology, (2000), 52/4 (411-414), 20 reference(s)
CODEN: SJIMAX ISSN: 0300-9475
DOCUMENT TYPE: Journal; Article
COUNTRY: United Kingdom
LANGUAGE: English
SUMMARY LANGUAGE: English
AN 2000:30724679 BIOTECHNO
AB Activation of the complement system has been documented in both experimental and clinical studies of acute myocardial infarction (AMI). Our earlier immunohistochemical studies have shown that the deposition of the membrane attack complex (MAC) of complement is associated with the loss of protectin (CD59), a glycosyl-phosphatidylinositol (GPI)-anchored sarcolemmal regulator of MAC, from the human and rat infarcted myocardium. In this study we detected, using an enzyme immunoassay (EIA), CD59 in the plasma of AMI patients at a concentration of 23.0 ± 8.4 ng/ml (mean ± SD; n = 17) at 4 h and 27.3 ± 11.8 ng/ml (n = 24) at 24h after AMI. Both values were significantly higher than in healthy controls (7.8 ± 6.4ng/ml; n = 20; P<0.001). The amount of CD59 correlated with the level of soluble terminal complement complexes (SC5b-9; r = 0.84; P < 0.01) in the plasmas of AMI patients. Our results suggest that myocardial damage leads to release of CD59 from the sarcolemmal cell membranes during AMI.

L15 ANSWER 4 OF 9 BIOTECHNO COPYRIGHT 2008 Elsevier Science B.V. on STN
DUPLICATE
ACCESSION NUMBER: 1999:29333807 BIOTECHNO
TITLE: Complement regulators C1 inhibitor and CD59 do not significantly inhibit complement activation in Alzheimer disease
AUTHOR: Yasojima K.; McGeer E.G.; McGeer P.L.
CORPORATE SOURCE: P.L. McGeer, Department of Psychiatry, Kinsmen Lab. of Neurol. Research, University of British Columbia, Vancouver, BC V6T 1Z3, Canada.
E-mail: mcgeerpl@interchange.ubc.ca
SOURCE: Brain Research, (03 JUL 1999), 833/2 (297-301), 26 reference(s)
CODEN: BRREAP ISSN: 0006-8993
PUBLISHER ITEM IDENT.: S0006899399015140
DOCUMENT TYPE: Journal; Article
COUNTRY: Netherlands
LANGUAGE: English
SUMMARY LANGUAGE: English
AN 1999:29333807 BIOTECHNO
AB Proteins characteristic of activated complement are associated with Alzheimer disease (AD) lesions. The classical complement pathway can be activated only when the influence of such endogenous regulators as C1-inhibitor (C1-inh) and CD59 are overcome. We used the

techniques of reverse transcriptase-polymerase chain reaction and Western blotting to assess the mRNA and protein levels of C1-inh and CD59 in AD and control brains in comparison with levels of the complement components with which they interact. The inhibitors were only slightly upregulated and then only in heavily affected areas of AD brain such as the entorhinal cortex, hippocampus, midtemporal gyrus and midfrontal gyms. The ratio of AD to control mRNAs in these four areas was 1.17 for C1-inh and 1.12 for CD59, compared to 3.06 for C1r, 2.67 for C1s, 2.35 for C5, 2.56 for C6, 2.42 for C7, 5.08 for C8 and 16.3 for C9. Peripheral organ expression of C1-inh and CD59 mRNAs was no different in AD than controls but was slightly upregulated in infarcted heart tissue. Again, the increase was small compared with that of the competitive complement components. These data indicate that the forces which upregulate and activate complement in AD and myocardial infarction are not effectively suppressed by the endogenous regulators, C1-inh and CD59.

L15 ANSWER 5 OF 9 PASCAL COPYRIGHT 2008 INIST-CNRS. ALL RIGHTS RESERVED. on STN

ACCESSION NUMBER: 1997-0246726 PASCAL

TITLE (IN ENGLISH): Membrane attack complex of complement and 20 kDa homologous restriction factor (CD59) in myocardial infarction

AUTHOR: TADA T.; OKADA H.; OKADA N.; TATEYAMA H.; SUZUKI H.; TAKAHASHI Y.; EIMOTO T.

CORPORATE SOURCE: Department of Pathology, Nagoya City University Medical School, Kawasumi, Mizuho-cho, Mizuho-ku, Nagoya 467, Japan; Research Institute for Molecular Biology, Nagoya City University Medical School, Nagoya, Japan; Division of Pathology, Aichi Hospital, Okazaki, Japan; Division of Pathology, National Nagoya Hospital, Nagoya, Japan

SOURCE: Virchows Archiv, (1997), 430(4), 327-332, 42 refs. ISSN: 0945-6317

DOCUMENT TYPE: Journal

BIBLIOGRAPHIC LEVEL: Analytic

COUNTRY: Germany, Federal Republic of

LANGUAGE: English

AVAILABILITY: INIST-863, 354000064803970090

AN 1997-0246726 PASCAL

AB In order to investigate the mechanism of deposition of the complement membrane attack complex (MAC) in cardiomyocytes in areas of human myocardial infarction, the 20 kDA homologous restriction factor of complement (HRF20; CD59) and complement components (C1q, C3d and MAC) were analysed immunohistochemically using specific antibodies. Myocardial tissues obtained at autopsy from nine patients who died of acute myocardial infarction were fixed in acetone and embedded in paraffin. The ages of the infarcts ranged from about 3.5 h to 12 days. In cases of myocardial infarction of 20 h or less, MAC deposition was shown in the infarcted cardiomyocytes without loss of HRF20. Where the duration was 4 days or more, the cardiomyocytes with MAC deposition in the infarcted areas also showed complete loss of HRF20. Outside the infarcts, HRF20 in the cardiomyocytes was well preserved without MAC deposition. The present study suggests that the initial MAC deposition in dead cardiomyocytes can occur as a result of degradation of plasma-membrane by a mechanism independent of complement-mediated injury to the membrane. Loss of HRF20 from dead cardiomyocytes may not be the initial cause of MAC deposition,

but may accelerate the deposition process of MAC in later stages of infarction.

L15 ANSWER 6 OF 9 PASCAL COPYRIGHT 2008 INIST-CNRS. ALL RIGHTS RESERVED. on STN

ACCESSION NUMBER: 1995-0260494 PASCAL
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TITLE (IN ENGLISH): Activation of the terminal complement cascade in renal infarction
AUTHOR: VAEKEVAE A.; MERI S.; LEHTO T.; LAURILA P.
CORPORATE SOURCE: Univ. Helsinki, dep. bacteriology immunology, 00014 Helsinki, Finland; Univ. Helsinki, dep. pathology, Helsinki, Finland
SOURCE: Kidney international, (1995), 47(3), 918-926, 55 refs. ISSN: 0085-2538 CODEN: KDYIA5
DOCUMENT TYPE: Journal
BIBLIOGRAPHIC LEVEL: Analytic
COUNTRY: United States
LANGUAGE: English
AVAILABILITY: INIST-15906, 354000056354620270
AN 1995-0260494 PASCAL
CP Copyright .COPYRGT. 1995 INIST-CNRS. All rights reserved.
AB Ischemic injury is an important cause of functional derangement in the kidney. The complement (C) system has previously been shown to be an important mediator of ischemic tissue injury in myocardial infarction. In the present study we therefore investigated the possible role of C in renal ischemic lesions. The deposition and distribution of various C components (C1q, C3c, C3d, C4, C5, C6, C9) and regulators [vitronectin, clusterin and protectin (CD59)] in human renal infarction lesions were studied by indirect immunofluorescence microscopy. Deposition of components of the terminal C complex (TCC), as well as vitronectin and clusterin, were observed throughout the infarcted areas. The strongest deposits were seen on the membranes of tubular epithelial cells and in the tubular lumina of the infarction areas, especially in the border zone between normal and infarcted tissue. Using markers for different segments of tubuli (Tamm Horsfall glycoprotein and brush border antigens) it was possible to localize deposits of TCC predominantly to the proximal tubuli. In the glomeruli of the infarcted areas deposits of TCC were seen as a crescent-like pattern at and immediately beneath the Bowman's capsule. The expression of cell membrane-associated protectin was diminished in tubular epithelial cells of the infarction lesions. A clue for the possible mechanism of C activation in renal infarction was obtained from in vitro experiments, in which the contact of normal human serum with urine was observed to lead to the generation of TCC. Thus, in renal ischemic lesions C may become activated when C components enter the intratubular urinary space of ischemic tubuli. Our results suggest that local C activation in association with ischemic renal injury leads to the generation of terminal C complexes and an inflammatory response whereby a healing process can begin

L15 ANSWER 7 OF 9 BIOTECHNO COPYRIGHT 2008 Elsevier Science B.V. on STN DUPLICATE

ACCESSION NUMBER: 1994:24172098 BIOTECHNO
TITLE: Time course of complement activation and inhibitor expression after ischemic injury of rat myocardium
AUTHOR: Vakeva A.; Morgan B.P.; Tikkanen I.; Helin K.; Laurila P.; Meri S.
CORPORATE SOURCE: Bacteriology/Immunology Department, University of Helsinki, Haartmaninkatu 3,FIN-00014 Helsinki,

Finland.
SOURCE: American Journal of Pathology, (1994), 144/6 (1357-1368)
CODEN: AJPAA4 ISSN: 0002-9440
DOCUMENT TYPE: Journal; Article
COUNTRY: United States
LANGUAGE: English
SUMMARY LANGUAGE: English
AN 1994:24172098 BIOTECHNO
AB Activation of the complement (C) system has been documented in both experimental and clinical studies of myocardial infarction, but the exact time course and mechanisms leading to C activation have remained unclear. Our earlier postmortem study on human beings showed that formation of the membrane attack complex (MAC) of C was associated with loss of CD59 (protectin), an important sarcolemmal regulator of MAC, from the infarcted area. The recent discovery of a rat analogue of CD59 has now allowed the first experimental evaluation of the temporal and spatial relationship between C component deposition and loss of CD59 in acute myocardial infarction (AMI). After ligating the left coronary artery in rats the earliest sign of C activation, focal deposition of C3, was observed at 2 hours. Deposition of the early (C1, C3) and late pathway (C8, C9) components in the AMI lesions occurred at 3 hours. Glycophosphoinositol-anchored rat CD59 was expressed in the sarcolemmal membranes of normal cardiomyocytes. In Western blot analysis extracts of normal rat heart CD59 appeared as a band of 21 kd of molecular weight under nonreducing conditions. Loss of CD59 in the AMI lesions was observed in association with deposits of MAC from day one onward. Our results show that C activation universally accompanies AMI in vivo. It is initiated within 2 hours after coronary artery obstruction via deposition of C3, which may be due to generation of the alternative pathway C3 convertase in the ischemic area. Deposition of C1 and late C components also starts during the early hours (2 to 4 hours) after ischemia. Subsequent loss of the protective CD59 antigen may initiate postinjury clearance of the irreversibly damaged tissue.

L15 ANSWER 8 OF 9 BIOTECHNO COPYRIGHT 2008 Elsevier Science B.V. on STN DUPLICATE
ACCESSION NUMBER: 1993:24058161 BIOTECHNO
TITLE: Regulation of complement membrane attack complex formation in myocardial infarction
AUTHOR: Vakeva A.; Laurila P.; Meri S.
CORPORATE SOURCE: Bacteriology/Immunology Department, University of Helsinki, Haartmaninkatu 3,SF-00290 Helsinki, Finland.
SOURCE: American Journal of Pathology, (1993), 143/1 (65-75)
CODEN: AJPAA4 ISSN: 0002-9440
DOCUMENT TYPE: Journal; General Review
COUNTRY: United States
LANGUAGE: English
SUMMARY LANGUAGE: English
AN 1993:24058161 BIOTECHNO
AB Recent studies have suggested that the complement (C) system is involved in the development of tissue injury of myocardial infarction. As it is not known why the strictly controlled C system starts to react against autologous heart tissue, we have analyzed the expression of various membrane regulators of C (CR1, DAF, MCP, CD59, C8 binding protein) and the pattern of deposition of C components and plasma C regulators (C4b binding protein and vitronectin) in normal (n = 7) and infarcted (n = 13) human myocardium. In the infarcted myocardium deposits of the C membrane attack complex (MAC) were

observed by immunofluorescence microscopy, and lesions resembling the transmembrane channels of MAC were detected by transmission electron microscopy. CD59 and C8 binding protein were strongly expressed by muscle cells of normal myocardial tissue. Little or no CR1, MCP, and DAF was observed on these cells. The assembly of MAC was accompanied by the deposition of vitronectin (S-protein) and C4b binding protein in the infarcted areas of myocardium. In accordance with our earlier results the expression of CD59 but not of C8 binding protein was clearly diminished in the lesions. The results show that C8 binding protein, vitronectin, and C4b binding protein do not prevent complement attack against the infarcted myocardium but rather become codeposited with the MAC. Ischemia-induced transformation of nonviable cells into complement activators, acquired loss of resistance to the MAC by shedding of CD59, and recruitment of multifunctional serum proteins by MAC could thus constitute a general process aimed at the clearance of injured tissue.

L15 ANSWER 9 OF 9 LIFESCI COPYRIGHT 2008 CSA on STN DUPLICATE 5
ACCESSION NUMBER: 93:57787 LIFESCI
TITLE: Loss of expression of protectin (CD59) is associated with complement membrane attack complex deposition in myocardial infarction.
AUTHOR: Vaekevae, A.; Laurila, P.; Meri, S.
CORPORATE SOURCE: Dep. Bacteriol. and Immunol., Univ. Helsinki, SF-00290 Helsinki, Finland
SOURCE: LAB. INVEST., (1992) vol. 67, no. 5, pp. 608-616.
DOCUMENT TYPE: Journal
FILE SEGMENT: M
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Protectin (CD59) is a recently discovered inhibitor of the complement membrane attack complex (MAC). In the present study we investigated expression of protection in human heart and examined the relationship between MAC deposition and protectin in myocardial infarction. Glycophosphoinositol-anchored CD59 is expressed in the sarcolemmal membranes of normal heart but lost from infarcted myocardium.

=> (CD59) and (Unstable angina
UNMATCHED LEFT PARENTHESIS 'AND (UNSTABLE'
The number of right parentheses in a query must be equal to the number of left parentheses.

=> (CD59) and (Unstable angina)
L16 0 FILE AGRICOLA
L17 0 FILE BIOTECHNO
L18 0 FILE CONFSCI
L19 0 FILE HEALSAFE
L20 0 FILE LIFESCI
L21 0 FILE PASCAL

TOTAL FOR ALL FILES
L22 0 (CD59) AND (UNSTABLE ANGINA)

=> CD59 and angina
L23 0 FILE AGRICOLA
L24 0 FILE BIOTECHNO
L25 0 FILE CONFSCI
L26 0 FILE HEALSAFE
L27 0 FILE LIFESCI

```
L28           0 FILE PASCAL

TOTAL FOR ALL FILES
L29           0 CD59 AND ANGINA

=> (CD59 or (CD 59)) and atherosclerosis
L30           0 FILE AGRICOLA
L31           4 FILE BIOTECHNO
L32           0 FILE CONFSCI
L33           0 FILE HEALSAFE
L34           4 FILE LIFESCI
L35           9 FILE PASCAL

TOTAL FOR ALL FILES
L36          17 (CD59 OR (CD 59)) AND ATHEROSCLEROSIS

=> dup rem
ENTER L# LIST OR (END):l36
PROCESSING COMPLETED FOR L36
L37           13 DUP REM L36 (4 DUPLICATES REMOVED)

=> d l37 ibib abs total

L37   ANSWER 1 OF 13  PASCAL  COPYRIGHT 2008 INIST-CNRS. ALL RIGHTS RESERVED.
      on STN
ACCESSION NUMBER:         2008-0463474   PASCAL
COPYRIGHT NOTICE:         Copyright .COPYRGT. 2008 INIST-CNRS. All rights
                          reserved.
TITLE (IN ENGLISH):       Brief Report : Accelerated Atherosclerosis
                          in Low-Density Lipoprotein Receptor-Deficient Mice
                          Lacking the Membrane-Bound Complement Regulator
                          CD59
AUTHOR:                   SHENG YUN; LEUNG Viola W. Y.; BOTTO Marina; BOYLE
                          Joseph J.; HASKARD Dorian O.
CORPORATE SOURCE:         Bywaters Centre for Vascular Inflammation, National
                          Heart and Lung Institute, Imperial College, London,
                          United Kingdom; Division of Investigative Sciences,
                          Imperial College, London, United Kingdom; Molecular
                          Genetics and Rheumatology Section, Division of
                          Medicine, Imperial College, London, United Kingdom
SOURCE:                   Arteriosclerosis, thrombosis, and vascular biology,
                          (2008), 28(10), 1714-1716, 15 refs.
                          ISSN: 1079-5642  CODEN: ATVBFA
DOCUMENT TYPE:            Journal
BIBLIOGRAPHIC LEVEL:      Analytic
COUNTRY:                  United States
LANGUAGE:                 English
AVAILABILITY:             INIST-19104, 354000185298500070
AN    2008-0463474   PASCAL
CP    Copyright .COPYRGT. 2008 INIST-CNRS. All rights reserved.
AB    Objective-Whereas studies in humans and animal models have suggested a
      role for complement activation in atherosclerosis, there has
      been little analysis of the importance of complement regulators. We
      tested the hypothesis that the terminal pathway inhibitor CD59
      plays an essential role in limiting the proinflammatory effects of
      complement activation. Methods and Results-CD59 gene targeted
      mice (CD59a.sup.-/-.sup./.sup.-) mice were crossed with low-density
      lipoprotein receptor-deficient (Ldlr.sup.-/-.sup./.sup.-) mice.
      CD59-deficient Ldlr.sup.-/-.sup./.sup.- mice had significantly more
      extensive en face Sudan IV staining of thoracoabdominal aorta than
      Ldlr.sup.-/-.sup./.sup.- single knock-outs, both after a low-fat diet
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(6.51±0.36% versus 2.63±0.56%, P<0.001) or a high-fat diet (17.05±2.15% versus 7.69±1.17%, P<0.004). Accelerated lesion formation in CD59a.sup.-/-.sup./.sup.-/Ldlr.sup.-/-.sup./.sup.- mice on a high-fat diet was associated with increased lesional vascular smooth muscle cell (VSMC) number and fibrous cap formation. Conclusion-Our data show that CD59 deficiency accelerates the development of lesions and increases plaque VSMC composition. Assuming that the main function of CD59 is to prevent the development of C5b-9 membrane attack complexes, our observations are consistent with the terminal complement pathway having proatherogenic potential in the Ldlr.sup.-/-.sup./.sup.- mouse model, and highlight the importance of complement regulation.

L37 ANSWER 2 OF 13 LIFESCI COPYRIGHT 2008 CSA on STN
ACCESSION NUMBER: 2007:97822 LIFESCI
TITLE: Characterisation of the complement susceptibility of the rat aortic smooth muscle cell line A7r5
AUTHOR: Capey, Steven; Mosedale, James G.Q.; Van den Berg, Carmen W.
CORPORATE SOURCE: Department of Pharmacology, Therapeutics and Toxicology, Wales Heart Research Institute, Cardiff University, Wales College of Medicine, Heath Park, Cardiff CF144XN, United Kingdom; E-mail: vandenbergcw@cardiff.ac.uk
SOURCE: Molecular Immunology [Mol. Immunol.], (20070100) vol. 44, no. 4, pp. 608-614.
ISSN: 0161-5890.
DOCUMENT TYPE: Journal
FILE SEGMENT: F
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Complement (C) activation is thought to contribute to the initiation and progression of atherosclerosis. Proliferation of smooth muscle cells plays an important role in atherosclerotic plaque formation. Our aim was to investigate the suitability of the rat aortic smooth muscle cell line A7r5 as an in vitro model to study C-induced events in smooth muscle cells. A7r5 cells abundantly expressed membrane bound C-regulators (CReg) Crry and CD59 as assessed by flow- cytometry, but no DAF or MCP was detected. Using RT-PCR in addition to Crry and CD59, also mRNA for rat DAF but not for MCP was detected. Flow-cytometry of cells removed by EDTA instead of trypsin demonstrated that A7r5 did express cell surface DAF. Upon prolonged culturing under either logarithmic growing conditions or under conditions where cells were kept over-confluent, two different sub cell lines were obtained, one which had lost the expression of CD59, while the other showed increased expression of DAF and Crry. The change in expression of these CReg resulted in a change in C-susceptibility. Incubation of the A7r5 cells with human serum induced membrane attack complex dependent proliferation. Transfection with human CD59 efficiently protected the cells from C-mediated killing and C-induced cell proliferation. Our results show that A7r5 cells can be used as an in vitro model for C-induced events, but care has to be taken to use the cells at an early stage of passaging as they readily change their phenotype.

L37 ANSWER 3 OF 13 PASCAL COPYRIGHT 2008 INIST-CNRS. ALL RIGHTS RESERVED. on STN
ACCESSION NUMBER: 2007-0054742 PASCAL
COPYRIGHT NOTICE: Copyright .COPYRGT. 2007 INIST-CNRS. All rights reserved.
TITLE (IN ENGLISH): Inhibition of complement component C3 reduces vein graft atherosclerosis in apolipoprotein E3-leiden transgenic mice

AUTHOR: SCHEPERS A.; DE VRIES M. R.; VAN LEUVEN C. J.; GRIMBERGEN J. M.; HOLERS V. M.; DAHA M. R.; VAN BOCKEL J. H.; QUAX P. H. A.

CORPORATE SOURCE: Gaubius Laboratory, TNO Quality of Life, Leiden, Netherlands; Department of Vascular Surgery, Leiden University Medical Centre, Leiden, Netherlands; Department of Rheumatology, University of Colorado Health Sciences Center, Denver, United States; Department of Renal Diseases, Leiden University Medical Centre, Leiden, Netherlands

SOURCE: Circulation : (New York, N.Y.), (2006), 114(25), 2831-2838, 31 refs. ISSN: 0009-7322 CODEN: CIRCAZ

DOCUMENT TYPE: Journal

BIBLIOGRAPHIC LEVEL: Analytic

COUNTRY: United States

LANGUAGE: English

AVAILABILITY: INIST-5907, 354000145259280120

AN 2007-0054742 PASCAL

AB Background-Venous bypass grafts may fail because of development of intimal hyperplasia and accelerated atherosclerosis. Inflammation plays a major role in these processes. Complement is an important part of the immune system and participates in the regulation of inflammation. The exact role of complement in the process of accelerated atherosclerosis of vein grafts has not yet been explored, however. Methods and Results-To assess the role of complement in the development of vein graft atherosclerosis, a mouse model, in which a venous interposition was placed in the common carotid artery, was used. In this model, vein graft thickening appeared within 4 weeks. The expression of complement components was studied with the use of immunohistochemistry on sections of the thickened vein graft. Clq, C3, C9, and the regulatory proteins CD59 and complement receptor-related gene y could be detected in the lesions 4 weeks after surgery. Quantitative mRNA analysis for Clq, C3, CD59, and complement receptor-related gene y revealed expression of these molecules in the thickened vein graft, whereas C9 did not show local mRNA expression. Furthermore, interference with C3 activation with complement receptor-related gene y-Ig was associated with reduced vein graft thickening, reduced C3 and C9 deposition, and reduced inflammation as assessed by analysis of influx of inflammatory cells, such as leukocytes, T cells, and monocytes. In addition, changes in apoptosis and proliferation were observed. When C3 was inhibited by cobra venom factor, a similar reduction in vein graft thickening was observed. Conclusions-The complement cascade is involved in vein graft thickening and may be a target for therapy in vein graft failure disease.

L37 ANSWER 4 OF 13 LIFESCI COPYRIGHT 2008 CSA on STN

ACCESSION NUMBER: 2005:112999 LIFESCI

TITLE: IL-4 and IL-13 Induce Protection of Porcine Endothelial Cells from Killing by Human Complement and from Apoptosis through Activation of a Phosphatidylinositide 3-Kinase/Akt Pathway

AUTHOR: Grehan, John F.; Levay-Young, Brett K.; Fogelson, Jeremy L.; Francois-Bongarcon, Vanessa; Benson, Barbara A.; Dalmasso, Agustin P.

CORPORATE SOURCE: Departments of Surgery and Laboratory Medicine and Pathology, University of Minnesota School of Medicine, Minneapolis, MN 55455

SOURCE: Journal of Immunology [J. Immunol.], (20050801) vol. 175, no. 3, pp. 1903-1910.

ISSN: 0022-1767.
DOCUMENT TYPE: Journal
FILE SEGMENT: F
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Vascular endothelial cells (EC) perform critical functions that require a balance of cell survival and cell death. EC death by apoptosis and EC activation and injury by the membrane attack complex of complement are important mechanisms in atherosclerosis and organ graft rejection. Although the effects of various cytokines on EC apoptosis have been studied, little is known about their effects on complement-mediated EC injury. Therefore, we studied the abilities of various cytokines to induce protection of porcine aortic EC against apoptosis and killing by human complement, a model of pig-to-human xenotransplantation. We found that porcine EC incubated with IL-4 or IL-13, but not with IL-10 or IL-11, became protected from killing by complement and apoptosis induced by TNF-alpha plus cycloheximide. Maximal protection required 10 ng/ml IL-4 or IL-13, developed progressively from 12 to 72 h of incubation, and lasted 48-72 h after cytokine removal. Protection from complement was not associated with reduced complement activation, C9 binding, or changes in CD59 expression. Inhibition of PI3K prevented development of protection; however, inhibition of p38 MAPK or p42/44 MAPK had no effect. IL-4 and IL-13 induced rapid phosphorylation of Akt. Although protection was inhibited by an Akt inhibitor and a dominant negative Akt mutant transduced into EC, it was induced by transduction of EC with the constitutively active Akt variant, myristylated Akt. We conclude that IL-4 and IL-13 can induce protection of porcine EC against killing by apoptosis and human complement through activation of the PI3K/Akt signaling pathway.

L37 ANSWER 5 OF 13 LIFESCI COPYRIGHT 2008 CSA on STN
ACCESSION NUMBER: 2006:91847 LIFESCI
TITLE: Porcine complement regulators protect aortic smooth muscle cells poorly against human complement-induced lysis and proliferation: consequences for xenotransplantation
AUTHOR: Capey, Steven; van den Berg, Carmen W.*
CORPORATE SOURCE: Department of Pharmacology, Therapeutics and Toxicology, Wales Heart Research Institute, Cardiff University, Wales College of Medicine, Cardiff, CF144XN, UK; E-mail: vandenbergcw@cardiff.ac.uk
SOURCE: Xenotransplantation, (20050500) vol. 12, no. 3, pp. 217-226 . Figures, 6..
ISSN: 0908-665X.
DOCUMENT TYPE: Journal
FILE SEGMENT: F
LANGUAGE: English
SUMMARY LANGUAGE: English
AB Background:Accelerated atherosclerosis after transplantation has been observed and is characterized by smooth muscle cell proliferation in the graft. Porcine cells are frequently used in models of atherosclerosis and porcine organs are considered for use in transplantation. Complement (C) activation is known to play a major role in rejection of xenografts and is also considered to play a role in the development of atherosclerosis. The aim of this study was to investigate the expression and function of membrane bound regulators of complement (CReg) on porcine aortic smooth muscle cells (PASMC). Methods:The PASMC were assessed for expression of CReg and susceptibility to lysis by human C by flow-cytometry. The effect of various cytokines on CReg expression and C-susceptibility was investigated. The ability of human C to induce cell proliferation was assessed using the Alamar blue assay. Results:The PASMC only express the CReg membrane cofactor protein (MCP) and CD59 on their cell surface. MCP expression was

increased by interleukin (IL)-4. In contrast to porcine aortic endothelial cells (PAEC), PASMC were found to be surprisingly sensitive to C-mediated lysis, mainly due to a low level of expression of CD59. Human C-induced proliferation of PASMC, which was dependent on complete membrane attack complex (MAC) formation. Conclusions:Endogenously expressed CReg on PASMC poorly protect these cells to human C. Human C can induce proliferation of PASMC. In order to prevent accelerated atherosclerosis in porcine xenografts, increased levels of CReg not only have to be obtained on the endothelial cells but also on the smooth muscle cells.

L37 ANSWER 6 OF 13 PASCAL COPYRIGHT 2008 INIST-CNRS. ALL RIGHTS RESERVED. on STN

ACCESSION NUMBER: 2004-0362628 PASCAL
COPYRIGHT NOTICE: Copyright .COPYRGT. 2004 INIST-CNRS. All rights reserved.
TITLE (IN ENGLISH): C-Reactive protein upregulates complement-inhibitory factors in endothelial cells
AUTHOR: LI Shu-Hong; SZMITKO Paul E.; WEISEL Richard D.; WANG Chao-Hung; FEDAK Paul W. M.; LI Ren-Ke; MICKLE Donald A. G.; VERMA Subodh
CORPORATE SOURCE: Division of Cardiac Surgery, University of Toronto, Ontario, Canada
SOURCE: Circulation : (New York, N.Y.), (2004), 109(7), 833-836, 21 refs.
ISSN: 0009-7322 CODEN: CIRCAZ
DOCUMENT TYPE: Journal; Short communication
BIBLIOGRAPHIC LEVEL: Analytic
COUNTRY: United States
LANGUAGE: English
AVAILABILITY: INIST-5907, 354000119284480070

AN 2004-0362628 PASCAL
CP Copyright .COPYRGT. 2004 INIST-CNRS. All rights reserved.
AB Background-Because complement-mediated vascular injury participates in atherosclerosis and C-reactive protein (CRP) can activate the complement cascade, we sought to determine whether CRP affects the expression of the protective complement-inhibitory factors on the cell surface of endothelial cells (ECs). Methods and Results-Human coronary artery or human saphenous vein ECs were incubated with CRP (0 to 100 μg/mL, 0 to 72 hours), and the expression of the complement-inhibitory proteins decay-accelerating factor (DAF), membrane cofactor protein (CD46), and CD59 were measured by flow cytometry. Incubation with CRP resulted in a significant increase in the expression of all 3 proteins. CRP-induced upregulation of DAF required increased steady-state mRNA and de novo protein synthesis. The increased expression of complement-inhibitory proteins was functionally effective, resulting in significant reduction of complement-mediated lysis of antibody-coated human saphenous vein ECs. Conclusions-These observations provide evidence for a possible protective role for CRP in atherogenesis.

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ACCESSION NUMBER: 2003-0031525 PASCAL
COPYRIGHT NOTICE: Copyright .COPYRGT. 2003 INIST-CNRS. All rights reserved.
TITLE (IN ENGLISH): Statin-induced expression of decay-accelerating factor protects vascular endothelium against complement-mediated injury
AUTHOR: MASON Justin C.; AHMED Zahra; MANKOFF Rivka; LIDINGTON Elaine A.; AHMAD Saifur; BHATIA Vinay; KINDERLERER Anne; RANDI Anna M.; HASKARD Dorian O.

CORPORATE SOURCE: British Heart Foundation Cardiovascular Medicine Unit, National Heart and Lung Institute, Imperial College, Hammersmith Hospital, London, United Kingdom
SOURCE: Circulation research, (2002), 91(8), 696-703, 41 refs. ISSN: 0009-7330 CODEN: CIRUAL
DOCUMENT TYPE: Journal
BIBLIOGRAPHIC LEVEL: Analytic
COUNTRY: United States
LANGUAGE: English
AVAILABILITY: INIST-7216, 354000105180670090
AN 2003-0031525 PASCAL

AB Complement-mediated vascular injury is important in the pathophysiology of atherosclerosis and myocardial infarction. Because recent evidence shows that statins have beneficial effects on endothelial cell (EC) function independent of lipid lowering, we explored the hypothesis that statins modulate vascular EC resistance to complement through the upregulation of complement-inhibitory proteins. Human umbilical vein and aortic ECs were treated with atorvastatin or simvastatin, and decay-accelerating factor (DAF), membrane cofactor protein, and CD59 expression was measured by flow cytometry. A dose-dependent increase in DAF expression of up to 4-fold was seen 24 to 48 hours after treatment. Statin-induced upregulation of DAF required increased steady-state mRNA and de novo protein synthesis. L-Mevalonate and geranylgeranyl pyrophosphate reversed the effect, confirming the role of 3-hydroxy-3-methylglutaryl coenzyme A reductase inhibition and suggesting that constitutive DAF expression is negatively regulated by geranylgeranylation. Neither farnesyl pyrophosphate nor squalene inhibited statin-induced DAF expression, suggesting that the effect is independent of cholesterol lowering. Statin-induced DAF upregulation was mediated by the activation of protein kinase Ca and inhibition of RhoA and was independent of phosphatidylinositol-3 kinase and NO activity. The increased DAF expression was functionally effective, resulting in significant reduction of C3 deposition and complement-mediated lysis of antibody-coated ECs. These observations provide evidence for a novel cytoprotective action of statins on vascular endothelium that is independent of the effect on lipids and results in enhanced protection against complement-mediated injury. Modulation of complement regulatory protein expression may contribute to the early beneficial effects of statins in reducing the morbidity and mortality associated with atherosclerosis.

L37 ANSWER 8 OF 13 BIOTECHNO COPYRIGHT 2008 Elsevier Science B.V. on STN
ACCESSION NUMBER: 2002:36398266 BIOTECHNO
TITLE: Identification of genes induced by oxidized phospholipids in human aortic endothelial cells
AUTHOR: Reddy S.T.; Grijalva V.; Ng C.; Hassan K.; Hama S.; Mottahedeh R.; Wadleigh D.J.; Navab M.; Fogelman A.M.
CORPORATE SOURCE: S.T. Reddy, Department of Medicine, University of California Los Angeles, A8-131 CHS, 650 Charles E. Young Drive South, Los Angeles, CA 90095, United States.
E-mail: sreddy@mednet.ucla.edu
SOURCE: Vascular Pharmacology, (01 APR 2002), 38/4 (211-218), 43 reference(s)
CODEN: VPAHAJ ISSN: 1537-1891
PUBLISHER ITEM IDENT.: S1537189102001714
DOCUMENT TYPE: Journal; Article
COUNTRY: United States
LANGUAGE: English
SUMMARY LANGUAGE: English

AN 2002:36398266 BIOTECHNO
AB Oxidized-L-α-1-Palmitoyl-2-Arachidonoyl-sn-glycero-3-Phosphorylcholine (Ox-PAPC), a component of mildly oxidized/minimally modified low-density lipoprotein (MM-LDL), accounts for many of the biological activities of MM-LDL. Having hypothesized that Ox-PAPC initiates gene expression changes in endothelial cells that result in enhanced endothelial/monocyte interactions and the subsequent development of atherosclerotic lesions, we used the suppression subtractive hybridization (SSH) procedure to compare mRNA isolated from PAPC-treated human aortic endothelial cells (HAEC) with mRNA isolated from Ox-PAPC-treated cells. Genes induced by Ox-PAPC but not by PAPC in HAEC included genes involved in signal transduction, extracellular matrix, growth factors, chemokines and several genes with unknown functions. The observed pattern of gene induction suggests that Ox-PAPC may play multiple roles in angiogenesis, atherosclerosis, and inflammation and wound healing. .COPYRGT. 2002 Elsevier Science Inc. All rights reserved.

L37 ANSWER 9 OF 13 PASCAL COPYRIGHT 2008 INIST-CNRS. ALL RIGHTS RESERVED. on STN

ACCESSION NUMBER:	2001-0358471 PASCAL
COPYRIGHT NOTICE:	Copyright .COPYRGT. 2001 INIST-CNRS. All rights reserved.
TITLE (IN ENGLISH):	Complement components, but not complement inhibitors, are upregulated in atherosclerotic plaques
AUTHOR:	YASOJIMA K.; SCHWAB C.; MCGEER E. G.; MCGEER P. L.
CORPORATE SOURCE:	Kinsmen Laboratory of Neurological Research, Department of Psychiatry, University of British Columbia, Vancouver, BC V6T 1Z3, Canada
SOURCE:	Arteriosclerosis, thrombosis, and vascular biology, (2001), 21(7), 1214-1219, 37 refs. ISSN: 1079-5642 CODEN: ATVBFA
DOCUMENT TYPE:	Journal
BIBLIOGRAPHIC LEVEL:	Analytic
COUNTRY:	United States
LANGUAGE:	English
AVAILABILITY:	INIST-19104, 354000099049060210

AN 2001-0358471 PASCAL
CP Copyright .COPYRGT. 2001 INIST-CNRS. All rights reserved.
AB Complement activation occurs in atherosclerotic plaques. The capacity of arterial tissue to inhibit this activation through generation of the complement regulators C1 inhibitor, decay accelerating factor, membrane cofactor protein (CD46), C4 binding protein (C4BP), and protectin (CD59) was evaluated in pairs of aortic atherosclerotic plaques and nearby normal artery from 11 human postmortem specimens. All 22 samples produced mRNAs for each of these proteins. The ratios of plaque versus normal artery pairs was not significantly different from unity for any of these inhibitors. However, in plaques, the mRNAs for C1r and C1s, the substrates for the C1 inhibitor, were increased 2.35-and 4.96-fold, respectively, compared with normal artery; mRNA for C4, the target for C4BP, was elevated 1.34-fold; and mRNAs for C7 and C8, the targets for CD59, were elevated 2.61- and 3.25-fold, respectively. By Western blotting and immunohistochemistry, fraction Bb of factor B, a marker of alternative pathway activation, was barely detectable in plaque and normal arterial tissue. These data indicate that it is primarily the classical, not the alternative pathway, that is activated in plaques and that key inhibitors are not upregulated to defend against this activation.

L37 ANSWER 10 OF 13 BIOTECHNO COPYRIGHT 2008 Elsevier Science B.V. on STN DUPLICATE

ACCESSION NUMBER: 2000:30770374 BIOTECHNO
TITLE: Induction of decay-accelerating factor by thrombin through a protease-activated receptor 1 and protein kinase C-dependent pathway protects vascular endothelial cells from complement-mediated injury
AUTHOR: Lidington E.A.; Haskard D.O.; Mason J.C.
CORPORATE SOURCE: J.C. Mason, BHF Cardiovascular Medicine Unit, National Heart and Lung Institute, Hammersmith Hospital, Du Cane Rd, London W12 ONN, United Kingdom.
E-mail: justin.mason@ic.ac.uk
SOURCE: Blood, (15 OCT 2000), 96/8 (2784-2792), 74 reference(s)
CODEN: BLOOAW ISSN: 0006-4971
DOCUMENT TYPE: Journal; Article
COUNTRY: United States
LANGUAGE: English
SUMMARY LANGUAGE: English
AN 2000:30770374 BIOTECHNO
AB There is increasing evidence for functional crosstalk between inflammatory and thrombotic pathways in inflammatory vascular diseases such as atherosclerosis and vasculitis. Thus, complement activation on the endothelial cell (EC) surface during inflammation may generate thrombin via the synthesis of tissue factor. We explored the hypothesis that thrombin induces EC expression of the complement-regulatory proteins decay-accelerating factor (DAF), membrane cofactor protein (MCP), and CD59 and that this maintains vascular integrity during coagulation associated with complement activetion. Thrombin increased DAF expression on the surface of ECs by 4-fold in a dose- and time-dependent manner as measured by flow cytometry. DAF upregulation was first detectable at 6 hours and maximal 24 hours poststimulation, whereas no up-regulation of CD59 or MCP was seen. Thrombin-induced expression required increased DAF messenger RNA and de novo protein synthesis. The response depended on activation of protease-activated receptor 1 (PAR1) and was inhibited by pharmacologic antagonists of protein kinase C (PKC), p38 and p42/44 mitogen-activated protein kinase, and nuclear factor-κB. The increased DAF expression was functionally relevant because it significantly reduced C3 deposition and complement-mediated EC lysis. Thus, thrombin - generated at inflammatory sites in response to complement activation - is a physiologic agonist for the PKC-dependent pathway of DAF regulation, thereby providing a negative feedback loop protecting against thrombosis in inflammation. (C) 2000 by The American Society of Hematology.

L37 ANSWER 11 OF 13 BIOTECHNO COPYRIGHT 2008 Elsevier Science B.V. on STN DUPLICATE
ACCESSION NUMBER: 1999:29258975 BIOTECHNO
TITLE: Glycosylphosphatidylinositol-specific phospholipase D is expressed by macrophages in human atherosclerosis and colocalizes with oxidation epitopes
AUTHOR: O'Brien K.D.; Pineda C.; Chiu W.S.; Bowen R.; Deeg M.A.
CORPORATE SOURCE: Dr. K.D. O'Brien, Division of Cardiology, Box 356422, University of Washington, Seattle, WA 98195-6422, United States.
E-mail: cardiac@u.washington.edu
SOURCE: Circulation, (08 JUN 1999), 99/22 (2876-2882), 43 reference(s)
CODEN: CIRCAZ ISSN: 0009-7322
DOCUMENT TYPE: Journal; Article

COUNTRY: United States
LANGUAGE: English
SUMMARY LANGUAGE: English
AN 1999:29258975 BIOTECHNO
AB Background - Glycosylphosphatidylinositol-specific phospholipase D (GPI-PLD) may play an important role in inflammation, because it can hydrolyze the GPI anchors of several inflammatory membrane proteins (eg, CD106, CD55, and CD59) and its hydrolytic products upregulate macrophage cytokine expression (eg, interleukin-1 and tumor necrosis factor-α). Because of its potential regulatory role in inflammatory reactions, we hypothesized that GPI-PLD might be expressed in atherosclerosis. Methods and Results - Immunohistochemistry using human GPI-PLD-specific rabbit polyclonal antiserum was performed on a total of 83 nonatherosclerotic and atherosclerotic human coronary arteries from 23 patients. Macrophages, smooth muscle cells, apoA-I, and oxidation epitopes also were identified immunohistochemically. Cell-associated GPI-PLD was detected in 95% of atherosclerotic segments, primarily on a subset of macrophages. Extracellular GPI-PLD was present in only 30% of atherosclerotic segments and localized to regions with extracellular apoA-I. In contrast, GPI-PLD was not detected in nonatherosclerotic segments. Expression of GPI- PLD mRNA by human macrophages was confirmed in vitro by reverse transcription/polymerase chain reaction. Further studies demonstrated that GPI-PLD-positive plaque macrophages contained oxidation epitopes, suggesting a link between oxidant stress and GPI-PLD expression. This possibility was supported by studies in which exposure of a macrophage cell line to H.sub.2O.sub.2 led to a 50 ± 3% increase in steady-state GPI-PLD mRNA levels. Conclusions - Collectively, these results suggest that oxidative processes may regulate GPI-PLD expression and suggest role for GPI-PLD in inflammation and in the pathogenesis of atherosclerosis.

L37 ANSWER 12 OF 13 BIOTECHNO COPYRIGHT 2008 Elsevier Science B.V. on STN
DUPLICATE
ACCESSION NUMBER: 1999:29318544 BIOTECHNO
TITLE: mRNA expression of complement components and regulators in rat arterial smooth muscle cells
AUTHOR: Li W.; Tada T.; Miwa T.; Okada N.; Ito J.-I.; Okada H.; Tateyama H.; Eimoto T.
CORPORATE SOURCE: Dr. T. Tada, Department of Pathology, Nagoya City Univ. Medical School, Mizuho-ku, Nagoya, Aichi 467-8601, Japan.
E-mail: ttada@med.nagoya-cu.ac.jp
SOURCE: Microbiology and Immunology, (1999), 43/6 (585-593), 65 reference(s)
CODEN: MIIMDV ISSN: 0385-5600
DOCUMENT TYPE: Journal; Article
COUNTRY: Japan
LANGUAGE: English
SUMMARY LANGUAGE: English
AN 1999:29318544 BIOTECHNO
AB The presence of C5b-9 complexes, some complement regulators, and abundant cytokines in atherosclerotic lesions has been reported. However, it is unclear whether these complement-associated proteins are produced by vascular smooth muscle cells (SMCs) and how they are influenced by the cytokines. In the present study, we demonstrated, by the reverse transcription-polymerase chain reaction method, the mRNA expression of complement components (C3, C4, and C5) and membrane regulators (decay-accelerating factor, membrane cofactor protein, Crry, and CD59) in cultured SMCs derived from the rat carotid artery. The expression of C9 mRNA was also induced upon stimulation by interferon-gamma (IFN-γ), tumor necrosis factor- alpha (TNF-α) and/or

lipopolysaccharide (LPS). Northern blot analysis showed that the mRNA expression of C3, C4, DAF and Crry was up-regulated, but that of CD59 was down-regulated by IFN-γ, TNF-α and/or LPS alone or by synergy. The increase of C3 mRNA by TNF-α or LPS and that of C4 mRNA by IFN-γ was induced in a dose-dependent manner. The results indicate that the arterial SMCs of rat have the ability to produce complement components and regulators, which is affected by cytokines and/or LPS. Since atherosclerosis is characterized by the intimal proliferation of SMCs, the complement system including its regulators may be involved in the pathogenesis of the disease.

L37 ANSWER 13 OF 13 PASCAL COPYRIGHT 2008 INIST-CNRS. ALL RIGHTS RESERVED. on STN

ACCESSION NUMBER: 1993-0050431 PASCAL
TITLE (IN ENGLISH): ΘD59 (homologous restriction factor 20), a plasma membrane protein that protects against complement C5b-9 attack, in human atherosclerotic lesions
AUTHOR: SEIFERT P. S.; ROTH I.; SCHMIEDT W.; OELERT H.; OKADA N.; OKADA H.; BHAKDI S.
CORPORATE SOURCE: Johannes Gutenberg univ., inst. medical microbiology, 6500 Mainz, Germany, Federal Republic of
SOURCE: Atherosclerosis, (1992), 96(2-3), 135-145, 19 refs. ISSN: 0021-9150
DOCUMENT TYPE: Journal
BIBLIOGRAPHIC LEVEL: Analytic
COUNTRY: Netherlands
LANGUAGE: English
AVAILABILITY: INIST-1713, 354000031710230050
AN 1993-0050431 PASCAL
AB Blood cells express a cell membrane protein, termed homologous restriction factor 20 (HRF20) and identical to CD59, that can inhibit complement C5b-9 insertion into their membranes. In this report, we investigated by immunohistochemistry whether CD59 was present on cells in human atherosclerotic lesions since membranous C5b-9(m) has been found in lesions. Using a monoclonal anti-CD59 antibody, a cellular CD59 staining pattern was apparent in nearly all lesion specimens